

THESIS

EDUCATION OF THE MIND AND BODY FROM THE
PHYSICAL STANDPOINT

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EDUCATION OF THE MIND AND BODY FROM THE
PHYSICAL STANDPOINT.

Outline.

Introduction: What is meant by Education and its Object.

Examples of other nations receiving benefit from

Physical Culture.

Causes of Physical Degeneracy.

1. Transmitted poor health.

2. Lack of healthy

Breathing

Air

Exercise

Rest

Food

Carriage of body

Organization of Brain.

Manner in which the body controls the mind.

Uses of Physical Culture.

Health

Physical Grace, quickness, etc.

Mental force.

Controls nerve centers

Makes strong characters

Aids in

Weight

Height

Appetite

Digestion

Controlling habits of

Worry

Anger

Improves circulation

Body warmth

Refreshing sleep

Kinds of Exercise needed.

Conclusion: Mind and body can not be separated in their
education.

Education was formerly considered in a narrow sense, as it was thought of as only brain culture, and that the mind depended entirely upon the cultivation of the brain as if it were a distinct and independent part of the body. Now it is considered in a broader light, since the growth of the intellect depends upon the development of the nerves, muscles, viscera, and other organs as well as on the brain.

However, physical education is still held to be as second to mental education. But the time will come when the two will be equal. Dr. D. A. Sargent says, "I maintain that the only rational method that will enable us to accomplish a perfect harmony is by placing mental and physical exercises on the same plane and by regarding every honest and faithful attempt toward physical improvement by the same recognition that we bestow upon the efforts to improve the mind."

The object of all education is to develop the best type of citizens possible, in the best physical, mental and moral manner, attainable. Best physically, because without a sound body it is impossible to have the highest type of intellectual development; without

a sound mind and body, it is impossible to have the best quality of moral development.

In the Greeks have been found the most splendid types of high intellectual order that the world has ever produced, and they have been long noted for their part in physical education. They believed in early physical training, beginning when only a child. The Spartans, realizing the influence the mother had upon the child, paid close attention that the women should receive proper physical training.

The ancient Romans, through religious feelings, had games and festal processions as a declaration of their gratefulness for the military achievements. The Romans received their muscular development differently from the Greeks, the former obtaining theirs in the military field.

Thus we see that the two most powerful nations of ancient times owed much of their success to the fact that their methods of education included physical culture. And when interest in this failed, (as it finally did) they as a nation of note, passed into remembrance only.

The Germans, as a nation, are the best example of this combined education in the more recent times.

Physical health, vigor, mental strength and power to a great degree is a matter of heredity. Hence

much of the physical degeneracy is due to the way in which the past generation lived; they did not think of the future generation, as they were so strong and well themselves.

The chief physical agencies are air, exercise, clothing, food, and rest.

Theoretically, air is admitted to be an agent conducive to life, while practically it is almost utterly disregarded. Now, the world seems to be trying to see how little it can use and how poor a quality. The want of soundness and fullness of the chest of the present generation is due to the lack of deep breathing. But this should not be overlooked, as this fullness is one of the first points to be observed in beauty.

The bony structure should not have to do all the work in keeping the body upright, for that is the office of the muscles. When correct posture and breathing are not maintained, the circulation is greatly impeded.

Suppose the blood is sufficiently aerated without the use of the full capacity of the lungs, say by an increased number of respirations,--are not the necessities of Nature thus adequately supplied and consequently no injury done?

Both the Greeks and Patriarchs of the Bible lived in the open air and they are noted for health.

Sunlight is another great need for health. The longlived generations of the past lived in the light

of the sun and bathed in its warmth,---is there any wonder the lives are so short now?--when the high buildings of the city shut out the rays of the sun, making many pale faces. Among the wealthy men, rowing, tennis and golf now take the place of the more physical work of older times. With the professional men, business hours are shorter and recreations are substituted to take the place of manual labor.

Instead of each man raising and making most of the necessary articles of food for his own use, as of old, the world's products now feed the world, and in this way many adulterations are used, which are very hard on the digestion, thus injuring the physical condition of the present generation.

It seems true that all nature requires rest. Plants have their alternate periods of growth and apparent rest; animals have their periods of activity and repose; so the muscle can not keep up its continued contraction and the body becomes wearied by persistent toil, sooner or later, and demands rest. And then it is that the entire muscular system gives itself up to repose with the exception of continuous breathing and the persistent beating of the heart. So far as can be judged, the action of the brain must have its period of rest, too. But instead of the correct amount of rest needed each night, many people (especially students) burn the midnight oil and thus after a time their

constitution is broken down.

Eugene Sandow says, "It is all a matter of mind. Nothing will make a man strong save his own concentration of thought". Knowing in just what place one is weak, then going straight to work and bringing that particular part up to the standard of one's best-- this is mental first, then physical. So, mentally, has the man of physical power developed every muscle in his entire body through direct instruction of the mind, followed by exercise, that his muscles obey him with fidelity. His great strength lies not in the size of his muscles alone, but in their obedience to his mind, so that they faithfully do their best at his bidding and in the uniformity of their development.

Not only every muscle, but every fibre of every muscle, if not every cell, is connected with a nerve fibre, which reaches the nerve centers. These nerve centers are subject to instruction and education. They have been trained to act upon instructions from the objective mind; any portion of the body to which nerve fibres reach, may be made to respond in their characteristic way.

The muscles are made up of fibres and these in turn are composed of a multitude of minute living cells. The cells are active and alive, responding to instructions sent to them from the nerve centers. It is the education and growth of these muscle cells which

give strength and activity to a muscle or a set of muscles. The mind is very intimately connected with every one of these wonderful little cells. We have seen that the mind can inspire these little cells with a greater activity for growth.

This gives us the clue to why it is that the mind is such an important factor in physical development. If the mind is centered upon the muscles and parts during the few minutes in which they are being exercised and the desire for their development is strong, with an enthusiasm and vigor in thought and exercise, the cells are stimulated by the best tonic that can be given them and the blood rushes to the parts to feed them.

This mind tonic continues with the cells after the exercise is over, and the growth is made following the exercise. That lower stratum of mind, which automatically goes along and directs the functional activities, has also received something. It has been stimulated with a greater desire for the growth and development of the parts exercised, and sees to it that the process of development is kept up. Thus the more the mind is thrown into the exercise, the more active will it continue after the exercise is over.

Particularly during growth the body is depending upon activity. In its every part there is a simultaneous growth and development. The cells are in a constant state of reformation and growth and require

increased circulation to make their development possible and the only means to supply the necessary blood is activity.

Every person has experienced the common fact that the mind can influence the body and the body influence the mind. We know that any change in quantity or quality of blood supply acts directly upon the brain cells and this influences our entire range of mental activities. On the other hand, while we admit the mind acts on the body, that every thought we think, every emotion we feel registers itself upon the organism, there is a different rate of heart beat when we are solving a mathematical problem from when we are reading a poem.

One supreme test that should measure every lesson in physical education is the educational test as follows:- Does this or that exercise give a better co-ordinated brain life, a better mental symmetry, increased mental force, or accelerated mental activity? Are physical exercises going to result in a better sense of discrimination, a brighter eye, a keener ear, a more delicate touch, better attention, more spontaneous memory, more accurate judgment and reasoning? If they have not these ends in view, then are not our efforts misdirected from the mental point of view?

Physical culture is used to secure and retain normal health. The latter is a product, the result of vigorous and harmonious action of all the organs and

functions upon which the nutrition of the body depends. In whatever way and to whatever degree physical culture contributes to the harmonious activity of the organs of nutrition, to that extent it is desirable and beneficial, but if carried beyond this point it becomes injurious.

Physical training, if it is education, tends to improve the brain condition, prevents and remedies the brain disorderliness, promotes healthy activity of both the mind and the body and develops not only physical grace, quickness and precision, but also mental force and activity should be increased.

To be education, physical exercise must be so adjusted as to exercise all parts of the brain. When a muscle is supplied with good blood, and is stimulated to action, it grows. We also recognize that the nerve centers of the brain, which stimulate the muscles and initiate its action, are affected at the same time and that these nerve centers will act on future actions with more exactness and with greater quickness when the same exercise is again carried out.

Another use of physical training is to control the various groups of nerve centers in the brain, increasing in this manner the quickness, precision, and association of their activities together. As a result, with the proper range of physical activities appealing to all the brain centers, a well organized system of physical education can not help but result in a firm building of a healthier brain.

Physical culture is also an important factor in character building. The essentials of a well developed character are a strong, active and well poised mind. The mind requires a good strong body in order that the brain may be fully nourished, hence a strong, well nourished, responsive body is another essential.

The brain itself is directly influenced by physical training:- it can not increase the number of cells in the brain, but it does develop the dormant cells and increase the size and energetic action of those already partially developed.

Motion is a necessary means of circulating the blood, for without it the body becomes weak and nervous, as can readily be seen in any one who is confined to the bed for any length of time.

If the smallest muscle is not developed to its best extent of strength, some portion of the brain is left only partially developed, since the development of any part of the body develops the part of the brain that controls that part of the body.

Physical exercise will enable a person to control the habit of worry and possibly anger, as it becomes a potent factor in the controlling of the mind. It also offers a great change of employment, there being no better rest from severe mental work than well selected body exercise.

Exercise improves the appetite to a great extent and also aids the digestion. It keeps the body at a comfortable warmth and helps to make one's sleep more refreshing.

Height and weight are two other uses to which physical culture tend to develop the body; this can not help from being noticed by every one.

Many people think that physical exercise, to be of use, must be executed with great energy and velocity; they want exercises that consist of jerky motions, strong and violent grips and leaps. This is wrong, however, and the exercise taken should be honest, genuine, muscle building and nerve coordinating, yet moderate, regular and systematic; stimulating the circulation of the body, which improves the circulation of the brain and is therefore an aid to cerebral movements. This kind of exercise improves the health and physical strength and so increases the capability of the individual for mental work and for the physical strain incident upon mental concentration.

Light motion aids the constant flow of lymph and blood better than strong and sudden motion. The slow physical exercise increases the strength of the muscles and decreases the secretion by means of respiratory action, hence decreases the amount of nourishment required.

Harmonious cultivation of the nerves and muscles can not be separated, as the motor part of the

brain can only attain its full vigor when the body is healthy.

Study sends the blood to the brain; exercise draws it to the extremities; while in the physical exercises, it is distributed throughout the body. Thought and emotion, when carried to excess, tend to disturb the functions of the vital organs through the action of the sympathetic nerves. Muscular activity, when carried to excess, equally disturbs the vital functions by depriving them of their proper amount of nervous stimulus. The exclusive development of the intellectual pursuits with neglect of the physical, will reduce the physical powers to their minimum and, reacting, will diminish the intellectual powers.

Montaigne says, "It is not a mind, it is not a body, that we have to educate, but a man, of whom we are not to make two beings".

Hence it has been shown that it is impossible to separate the influences created in the mind from those it produces upon the body, but its effects upon both are just what each person chooses to make them. It will develop towards physical health and perfection, producing the "sound mind in the sound body", or towards discordant, unhealthy action of the vital organs.

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